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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,200	05/02/2001	Gregory Ciurpita	2925-0492P	4515

30594 7590 04/19/2006

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EXAMINER

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ART UNIT

PAPER NUMBER

2626

DATE MAILED: 04/19/2006

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/846,200  
Filing Date: May 02, 2001  
Appellant(s): CIURPITA ET AL.

**MAILED**

APR 19 2006

**Technology Center 2600**

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Mr. Gary D. Yacura  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 3/6/2006 appealing from the Office action mailed on 10/4/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: In group a), the claims rejected under 35 U.S.C § 103 as being unpatentable over Gerson et al (U.S. Patent: 4,870,686) in view of

Ammicht et al (U.S. Patent: 6,246,986) are: 1-5, 7-8, 10-15, 18, 20-21, and 25-27 and should not include claims 22-23. Claims 22-23 are rejected under 35 U.S.C § 103 as being unpatentable over Gerson et al (U.S. Patent: 4,870,686) in view of Ammicht et al (U.S. Patent: 6,246,986), and further in view of Vanbuskirk et al (U.S. Patent: 6,505,155), as is correctly noted in group c).

### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

### **(8) Evidence Relied Upon**

4,870,686	GERSON et al	9-1989
6,246,986	AMMICHT et al	6-2001
5,325,421	HOU et al	6-1994
6,505,155	VANBUSKIRK et al	1-2003
6,269,336	LADD et al	7-2001

Larsen, L.B. "Investigating a Mixed-Initiative Dialogue Management Strategy," Automatic Speech Recognition and Understanding, Proceedings, 1997 IEEE Workshop on, Dec. 14-17, 1997, pp. 65 – 71

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5, 10-15, 18, 20-21, and 25-27 stand finally rejected under 35 U.S.C 103(a) as being unpatentable over Gerson et al (*U.S. Patent: 4,870,686*) in view of Ammicht et al (*U.S. Patent: 6,246,986*). This rejection is set forth in a prior Office Action, mailed on 10/04/2005.

Claims 6, 17, and 19 stand finally rejected under 35 U.S.C 103(a) as being unpatentable over Gerson et al (*U.S. Patent: 4,870,686*) in view of Ammicht et al (*U.S. Patent: 6,246,986*), and further in view of Hou et al (*U.S. Patent: 5,325,421*). This rejection is set forth in a prior Office Action, mailed on 10/04/2005.

Claims 7-8 and 22-23 stand finally rejected under 35 U.S.C 103(a) as being unpatentable over Gerson et al (*U.S. Patent: 4,870,686*) in view of Ammicht et al (*U.S. Patent: 6,246,986*), and further in view of Vanbuskirk et al (*U.S. Patent: 6,505,155*). This rejection is set forth in a prior Office Action, mailed on 10/04/2005.

Claims 9 and 24 stand finally rejected under 35 U.S.C 103(a) as being unpatentable over Gerson et al (*U.S. Patent: 4,870,686*) in view of Ammicht et al (*U.S. Patent: 6,246,986*), and further in view of Larsen ("*Investigating a Mixed-Initiative Dialogue Management Strategy*," 1997). This rejection is set forth in a prior Office Action, mailed on 10/04/2005.

Claim 16 stands finally rejected under 35 U.S.C 103(a) as being unpatentable over Gerson et al (*U.S. Patent: 4,870,686*) in view of Ammicht et al (*U.S. Patent: 6,246,986*), and

further in view of Ladd et al (*U.S. Patent: 6,269,336*). This rejection is set forth in a prior Office Action, mailed on 10/04/2005.

### **(10) Response to Argument**

The applicants' traverse the prior art rejection of independent claims 1 and 13 on the basis that "Gerson and Ammicht, individually or in combination, fail to disclose or suggest a method of recognizing speech in systems that accept speech input comprising at least: immediately feeding back the recognition result for verification by the user, wherein the recognition result is interrupted by the user prior to being fed back for verification" (*Appeal Brief, Page 7*). Before addressing the applicants' specific points of the aforementioned argument, the examiner will provide a summary of the Gerson and Ammicht references as applied to claims 1 and 13.

With respect to Claims 1 and 13, Gerson et al (*U.S. Patent: 4,870,686*) teaches a method and system for speech recognition that is capable of recognizing spoken keyword sequences comprising digit strings. These digit strings are received in subgroups or partial sequences (*Col. 7, Lines 5-25*). Upon detecting a pause in a user's speech, a spoken partial sequence is recognized and fed back to the user via a speech synthesizer for verification (*Col. 7, Lines 27-67*). If the speech is correctly recognized, the user can proceed to speak the remainder of the digit string keyword. Processing continues in this manner until an entire digit sequence is properly recognized (*Col. 7, Lines 38-67*).

In the case of Gerson, an entire recognized partial digit sequence must be played back to a user via a speech synthesizer before a user can provide further speech input. Thus, Gerson is deficient in the teachings of an interruption function that allows a synthesizer audio output to be interrupted by user speech, however Ammicht et al (U.S. Patent: 6,246,986), discloses such an interruption function.

Specifically, Ammicht teaches a “bargue-in” operation in a speech recognition system capable of recognizing spoken digits (*Col. 5, Lines 21-35; and Col. 4, Lines 43-62*). This bargue-in feature enables a speaker to interrupt an audio output from a system before it is fully provided and prevents such an audio output from being recognized as a user’s speech (*Col. 3, Lines 35-45*).

Gerson and Ammicht are analogous art because they are from a similar field of endeavor in speech recognition systems capable of recognizing spoken digits. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to add the bargue-in feature taught by Ammicht to the system taught by Gerson to allow a user to interrupt an audio output (a speech recognition feedback in the case of Gerson) at any time and prevent such an audio output from being recognized as a user’s speech. The motivation for such a modification of Gerson is found in the Ammicht reference (*Col. 2, Lines 19-29 and Col. 3, Lines 35-45*).

Returning to the applicants’ specific arguments, the applicants first argue that the teachings of Ammicht are directed to a feature for barging-in during a system prompt playback period and not during the playback of a speech recognition result (*Appeal Brief, Page 8*). In response, the examiner points out that by playing back a speech recognition result to a user, the system taught by Gerson is effectively prompting a user to verify a speech recognition result

(Col. 7, Lines 27-67). Since the speech recognition result feedback taught by Gerson is also a prompt, it is thus compatible and combinable with the prompt interruption operation taught by Ammicht for interrupting such a speech recognition feedback prompt.

Secondly, the examiner notes that both the speech recognition feedback of Gerson and the audio prompt of Ammicht are further related in that they are audio outputs that are not intended to be recognized as user speech. Ammicht discloses that a barge-in feature can be used for preventing any “noises or language not meant to be heard and used” from being recognized as user speech (*Ammicht*, Col. 3, Lines 35-45). Since the speech recognizer taught by Gerson is only concerned with recognizing a user’s speech and not a speech recognition feedback (Col. 7, Lines 15-67), the barge-in feature taught by Ammicht would prevent the audio output (speech synthesizer output not meant to be entered as user speech) in Gerson from being recognized as user speech while allowing a user to interrupt such a feedback.

Thus, since Ammicht teaches a barge-in feature that enables a user to interrupt a system prompt before it is fully provided to a user and Gerson teaches a speech recognition verification prompt in the form of a recognition feedback of a partial digit sequence, as noted above, the aforementioned arguments are not persuasive.

The applicant further argues that the examiner has provided no evidence as to “why one of ordinary in the art would be motivated to incorporate the “barge-in” feature of Ammicht into the system of Gerson” (*Amendment*, Pages 8-9). In response, the examiner notes that the motivation for combining the teachings of Gerson and Ammicht has been provided in the previous Office Action (*Page 5*) and is found in the Ammicht reference (helping to facilitate



user-machine interactions by allowing a user to interrupt a prompt with a meaningful speech input at any time, Col. 2, Lines 19-29; Col. 3, Lines 35-45). As noted in the MPEP (706.02(j)), to establish a prima facie case of obviousness, three criteria must be met:

First, there must be some suggestion or motivation, either *in the references themselves* or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In the present case, the motivation for combining the prior art of record is found in the Ammicht reference (*helping to facilitate user-machine interactions by allowing a user to interrupt a prompt with a meaningful speech input at any time, Col. 2, Lines 19-29; Col. 3, Lines 35-45*).

Second, there must be a reasonable expectation of success. Since, as noted above, Gerson teaches an audio prompt in the form of a speech recognition feedback and Ammicht teaches the ability to interrupt an audio prompt with user speech, the examiner submits that the combination of Gerson and Ammicht would have a reasonable expectation of success. Also, the examiner points out that the system taught by Gerson features a display of a partial digit sequence result in addition to the speech synthesizer playback (*Col. 7, Lines 27-67*). Thus, by modifying Gerson with the teachings of Ammicht, if a user instantly verifies that speech was correctly recognized from a display, there would be no need to wait for the speech recognition feedback prompt to finish by utilizing a barge-in feature which would allow a user to interrupt a system prompt (speech recognition verification prompt in the case of Gerson) with a spoken input, which is a further reason such a combination would have a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. As noted in the prior office action (*Pages 4-5*), Gerson teaches all of the limitations of claims 1 and 13 except for the ability of a user to interrupt a speech recognition result before it is fed back to a user. The barge-in feature taught by Ammicht eliminates this deficiency in the teachings of Gerson. Thus, it is the teachings of Gerson and Ammicht, when taken in combination, that teach all of the claim limitations.

Therefore, since all three requirements for establishing a prima facie case of obviousness have been met, the examiner contends that the rejection under 35 U.S.C. 103(a) is proper.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (*Appeal Brief, Page 9*), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to Claims 6, 17, and 19, the applicant argues that “Gerson, Ammicht, and Hou, singly or in any combination, fail to disclose or suggest a negative utterance that is included in the recognition result and the rejection criteria is met if the negative utterance is included therein” (*Appeal Brief, Page 10*). The applicant further argues that Hou is silent as to including a “negative utterance” in the recognition result (*Appeal Brief, Page 10*). In response, the

examiner notes that such an inclusion of a negative utterance in a recognition result is taught by the combination of the teachings of Gerson and Hou.

As noted above, Gerson teaches a method and system that replays recognized speech back to a user, but does not include a negative utterance in a speech recognition vocabulary. Hou, however, recites the ability to include a negative keyword in a user utterance to cancel digits that a user has spoken (*Col. 10, Lines 42-58*). Combining the ability to include a negative keyword in a user utterance as taught by Hou with the speech recognition feedback ability as disclosed by Gerson would yield a negative utterance that would be fed back to a user to verify and confirm whether such an utterance was correctly recognized (*i.e., a rejection criteria is met or successfully recognized when fed back correctly to the user, as in the case with spoken digit recognition*). The motivation for combining the prior art of record is provided by the Hou reference (*providing a means for a user to delete an incorrect speech input while entering a digit string, Col. 10, Lines 47-51*). Thus, since the combination of Gerson and Hou provides the teaching of a negative utterance included in a speech recognition feedback for verification, the applicants' aforementioned arguments are not convincing.

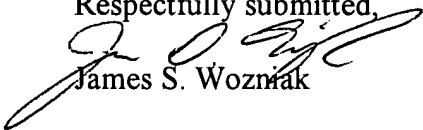
With respect to Claims 2-5, 7, 8, 9,10-12, 14-16, 18, and 20-27, the applicants argue that Gerson and Ammicht fail to teach the claimed subject matter for the same reasons as claims 1 and 13 (*Appeal Brief, Pages 10-11*). In response, the examiner notes that Gerson and Ammicht teach the claimed subject matter of claims 1 and 13 for the above reasons.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,




James S. Wozniak

Conferees:



James S. Wozniak, David Hudspeth, and Tāļivaldis Šmits



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